

Path of Determined Fragments of Uranium Fission  
in Various Materials, by Francis Suzor, 44 pp.

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CHESMAN, per, Ann Phys, Vol IV, 1949, pp 269-309.

ABC Tr-3646

Sci - Phys  
14 Oct 60

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Pulse Generation of Intense Magnetic Fields.  
Applications to Phenomena of Rotational  
Polarization and Magnetic Birefringence, by  
G. Raoult.

FRENCH, per, Annales de Physique, Vol IV,  
No 12, 1949, pp369-421.

\*NASA

Sci - Phys

21 Mar 62

Fassbender, J.  
THE PHOTOELECTRIC PROPERTIES OF SINGLE  
CRYSTALS OF CADMIUM SULFIDE. [Feb 63] 17p.  
Order from ATS \$23.50      ATS-28P66G

Trans. of Annalen der Physik (East Germany) 1949,  
ser. 6, v. 5, p. 33-50.

DESCRIPTORS: \*Single crystals, \*Cadmium com-  
pounds, Sulfides, \*Photoelectric effect.

(Physics--Solid State, TT, v. 9, no. 7)

63-12767

I. Fassbender, J.  
II. ATS-28P66G  
III. Associated Technical  
Services, Inc.,  
East Orange, N. J.

ATS-86P-G

Office of Technical Services

New Measurements of the Radiation Dislocation  
Effect During Total Reflection, by F. Goos,  
Hilda Lindberg-Haenchen. 4 p.  
GERMAN, per, Ann. Physik, Vol 5, No 6, 1949,  
pp 251-252.  
AEC SC-T-64-2000

Sci/Electronics  
May 66

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Ionic Conduction and Disorder of Silver Bromide  
With Additions of Divalent Cations. I. Con-  
ductivity Measurements and Phase Diagrams, by  
J. Teltov, 19 pp.

GERMAN, per, Ann Physik, Vol VI, No 6, 1949,  
pp 63-68.

AEC Tr 3596

Sci - Phys

May 59

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Grüneisen, E., Rausch, K., and Weiss, K.  
STUDIES ON ELECTRIC AND THERMAL CON-  
DUCTIVITY OF BISMUTH SINGLE CRYSTALS WITHIN  
A TRANSVERSAL MAGNETIC FIELD. [1962] 24p.  
10 refs.

Order from SLA \$2.60

63-10741

Trans. of Annalen der Physik (East Germany) 1950,  
ser. 6, v. 7, no. 1/2, p. 1-17.

DESCRIPTORS: \*Bismuth, \*Single crystals, \*Electrical  
conductance, \*Thermal conductivity, Magnetic fields,  
Crystal lattices, Metallic crystals.

The influence of transversal magnetic fields on the  
electric- and thermal conductivity of Bi-S-crystals  
(main axis  $\perp$  rod axis) is studied particularly with re-  
gard to the so called reversal effects (resistance  
changes on field reversal). Lattice and electronic con-  
tributions to the thermal conductivity are separated.  
(Author)

63-10741

I. Grüneisen, E.  
II. Rausch, K.  
III. Weiss, K.

(Physics--Solid State,  
TT, v. 9, no. 11)

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Some Observations on Methods of Current - Voltage charge  
Measurement Using Electronic Valve Amplifiers, by W. Boe

GERMAN

HEISE, Ann. Phys., Lpz., Vol VII, Nos 3,4, 1950,  
pp 193-308.

14, 914

11/3/5/98  
p 220072

Scientific  
XXXXXXXX - Physics

Countercurrent Condensation With Simultaneous Material  
Exchange Between a Binary Mixture, by P. Grassman,  
14 pp.

Full translation.

GERMAN, per, Annalen Der Physik, Vol VII, No 6, 1950,  
pp 54-62.

CIA/FDD/X-954

Scientific - Physics

3669



Gobrecht, H.  
THE OPTICAL ABSORPTION SPECTRUM OF THU-  
LIUM SULFATE. [1961] (7) p. 9 refs.  
Order from SLA \$1.10 61-20209

Trans. of Ann[alen] der Physik (East Germany) 1950,  
ser. 6, v. 7/8, p. 88-92.

DESCRIPTORS: \*Thulium compounds, \*Sulfates, Rare  
earth compounds, \*Ultraviolet spectroscopy,  
Absorption spectrum.

(Physics--Spectroscopy, TT, v. 10, no. 5)

61-20209

I. Gobrecht, H.

Office of Technical Services

Rigorous Theory of the Refraction of Plane Electro-  
Magnetic Waves at a Fully Conducting Circular Plate  
and at a Circular Opening in a Fully Conducting  
Plane Screen, by ~~Dr. Meixner~~ J. Meixner,  
W. Andrajewski.

GERMAN, per. Annal Phys, Vol VII, 1950, p 157.

D.S.I.R./10439/CT

Scientific - *ELECTRICITY*  
~~Electronics~~

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On Reflection in an Inhomogeneous Medium, by K.  
Forsterling, H. O. Wuster,

Optik, per, Ann Physik, Vol VIII, No 6, 1950,  
pp 129-133.

NASA TR F-8039

Sci  
Sep 61

168, 438

Reflection of a Lightwave Bounded on the Side  
at the Less Dense Medium at Some Distance From  
the Critical Angle of Total Reflection, by  
Kurt Artmann.

GOVERNMENT USE ONLY

GERMAN, per, Annalen der Physik, Vol 8, No 6,  
1951, pp 285-290. P200262767  
RSIC-682

Sci-Phys  
Sept 67

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61-25899

Benoit, H.  
CONTRIBUTION TO THE STUDY OF THE KERR EFFECT EXHIBITED BY DILUTE SOLUTIONS OF RIGID MOLECULES. [1961].  
Order from AC \$37.50

Trans. of Annales de Physique (France) 1951 [ser. 12] v. 6, p. 561-609.

DESCRIPTORS: \*Molecules, Solutions, Refraction, Relaxation time, Molecular rotation, \*Electric fields, Optics.

This study furnishes the following results: (1) The birefringence disappeared exponentially with a time of relaxation  $1/6 D$  ( $D$  being the constant of diffusion of rotation of molecules) independently of the initial conditions. (2) The law of establishment of the field depends on the nature of the couple of orientation and there can (Physics--Molecular, TT, v. 7, no. 1) (over)

1. Title: Kerr effect
1. Benoit, H.
- II. Capelo, A., Hollywood, Calif.

Office of Technical Services

TT-65-12337

Field 20I

Seeliger, R.; Wichmann, A.  
INVESTIGATIONS ON THE POSITIVE COLUMN OF THE  
GLOW DISCHARGE IN OXYGEN. I. 15p, 6 refs.  
Order from SLA: \$1.60 as TT-65-12337

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v9(s6) n5 p235-44 1951.

I. Seeliger, R.  
II. Wichmann, A.

MR 630

Refraction and Reflection of a (light-) Wave  
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Two Media Near the Critical Angle of Total  
Reflection, by K. Artmann.

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1951, pp 270-284. P200249867  
RSIC-6851

Sci-Phys  
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Measurement of Electric Conductivity of CdS Crystals  
Bombarded by Electrons of Medium Energy, by H. Benda,  
21 pp.

GERMAN, per, Annalen der Physik, Vol IX, Series 6,  
1951, pp 413-422.

*CIA/FOUO/X-754*  
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~~SECRET~~

Scientific - Electronics, conductivity, crystals,  
energy



Electrical and Optical Behavior of Copper Sulphides, by L. Eisingmann.

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GERMAN, per, Ann Physik, Vol 10, No 5, 1952, pp 129-152.

NASA TT F-12,225

Sci-Phys

Aug 69

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Harry Dia. Bab. DAAG39-68F0943

R-8866-D

7 Nov 67

Innere Feldemission aus lokalisierten Fehlstellen  
isolierender Kristalle

By: Walter Franz

From: pp 2-24 Annalen der Physik 6. Folge Band 11, 1952  
( 21 pp)

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mutilate document. Reproduce for paste-up.

Specular Systems with Grazing Incidence as a  
Image Optics for X-Rays, by H. Wolter, 22 pp.  
GERMAN, Annalen der Physik, Vol 10, No 6,  
1952, pp 94-114.

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Contribution to the Study of the Kinetic Theory  
of Solids, by A. Herpin.

*FRANCE*  
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*Sci*  
*Jul 56*

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Absolute Measurement of Beta Activities, and its  
Application for the Determination of Neutron Den-  
sities, by Rene Cohen

FRENCH, Annales de Physique, Vol VII, pt. 12, pp  
135-237, 1952.

*Am. Meteor. Soc.*  
T-48 FU T-45 FU  
AEC-IR-1527

Scientific - Physics

1328

Internal Conversion; Study of Some Excited States  
of Heavy Nuclei Through Their Conversion Radiation,  
by Jean Teillac, 51 pp. UNCLASSIFIED

Full translation.

FRENCH, per, Ann Phys, Vol VII, No 12, 1952,  
pp 396-450.

AEC Tr 2042

Scientific - Nuclear Physics

Jun 53 CTS/DEX

Also Avail @ UCRL Trans 151

3061

Semiconductor Properties of Cuprous Oxide. I.  
Method of Preparation With Consideration of  
Stability Conditions, by G. Blankenburg, K.  
Kassel, 10 pp.

GERMAN, per, Ann Physik, Vol. X, 1952, pp 201-210.

ATS-903-GJ

AEC Tr 2420

Assoc Tech Sv, Tr 41898

Sci - Chemistry, Physics 33, 266

Apr 56

Generalized Schwarzschild Systems of Mirrors With  
Glancing Reflection as Optical Systems for X-Rays,  
by H. Wolter.

GERMAN, per, Annalen der Physik, Vol X, 1952,  
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NASA TT F-8733

Sci-Phys

May 64

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Theory of Diffraction by a Cylinder as Affected by  
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17 pp.

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IAC INTERNAL USE ONLY

Scientific - Physics

Dec 55 CTS/DEX

Theoretical Discussion of the Influence of  
Ferromagnetic Coercive Forces of Spheroidal  
Inclusions Which Are Small as Compared With the  
Thickness of the Bloch Walls, by E. Schwabe.

Grunwaldt, Annalen der Physik, Vol XI, No 2/3,  
1952, pp 99-112.

NDI 2139

Sci - Phys

168, 4500

Sep 61

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Noise Measurements on Thin Lead Sulphide Photo Layers,  
by F. Eckart, 5 p.

GERMAN, per, ~~Annalen der Physik~~, 1952, 6 Folge,  
Vol. XI, No 2/3, pp 166-168.

SLA 59-17913

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Feb 60  
Vol 2, No 10

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Boundary Layer Noise in Semiconductors, by W. M.  
Buttler, 8 p.

GERMAN, per, ~~Annalen der Physik~~, 1953, 6 Folge, Vol  
Vol XI, No 4-7, pp 362-367.

SLA 59-17931

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Vol 2, No 11

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The Boundary Layer Noise of CdS Monocrystals, by  
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SLA 59-17930

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Vol 2, No 11

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Contribution to the Interpretation of the  
Internal Damping of Solid Bodies, by Thrust  
and Compression Viscosity, by Ho. O. Kneser,  
K. Voels, 7 p.

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SLA 59-17870

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A Theory Concerning the Diffraction of Electromagnetic Waves in a Perfectly Conducting Circular Disc and Related Problems,  
by J. Meixner, 16 pp.

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No 12, 1953, pp 227-236. 9204403

Amer Meteorol Soc T-6-176

Sci - Phys  
Mar 63

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Boundary Conditions and Transit Time Effects in  
Connection With Tube Noise, by R. Wiesner, 47 pp.

GERMAN, per, Ann Physik, Vol VI, No 12, 1953,  
pp 361-378.

SLA : 57-2499

May 58

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The Intensity Distribution of Spectral  
Lines in the Fabry-Perot Interferometer,  
by K. Krebs and A. Sauer, 17 p.  
GERMAN, per, Annalen der Physik, No 13,  
1953, pp 359-368. 9700107  
AFCL T-4-245

Sci-Phys  
Apr 66

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The Graphite ~~xx~~ Arc as Spectrophotometric Standard  
of Radiation Density in the Range From 0.25 to  
1.8 , by J. Euler, 28 pp.

GERMANY, per, Annalen der Physik, Vol XI, No 6,  
1953, pp 203-224.

Navy Tr 3189/INRL 894

Sci - Phys

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Jul 62

On the Theory of Solutions of Alkali Metals in  
Liquid Ammonia, by Werner Bingel, 102 pp.

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ABC Tr-4262

Sci - Phys  
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The Theory of Probes in Electronegative Gases,  
by Johannes Wilhelm, 8 pp.

GERMAN, per, Annalen der Physik, Vol XII,  
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A.E.R.E. Harwell Tr 461

Sci - ~~Fuel, Electricity~~, ionization of gases

*Physics*

31,960

Theory of Solutions of Alkali Metals in Liquid  
Ammonia: Errata, by W. Bihgel,

GERMAN, per, Ann Physik, Vol XII, 1953, p 424.

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Sci - Phys  
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Monoenergetic Ion Beams From the Glow-Discharge  
of the Hollow Cathode, by M. Puhl, W. Kleinmann,  
25 pp.

GERTMAN, per, Ann Physik, Vol XIII, No 6, 1953,  
pp. 166-177.

ABC UCRL-Trans-587(1.)

Sci - Phys  
13 Mar 61

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Cluster Theory Investigation of Electron Bands in  
Diamond Lattices, by W. Doring, V. Zehler.

GERMAN, per, Annalen der Physik, Vol XIII, No. ~~6~~ 6,  
1953, pp 215-228.

\*AFCL Res Lib

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*Emmanuel College La Jolla Center*

24 May 62

~~Res. II Center~~

The Calculation of Energy Bands in the Diamond  
Crystal, by V. Zehler, 37 pp.

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Sci - Phys  
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The Effect of Oxygen on the Conductivity of C<sub>60</sub>  
Single Crystals, by W. Muscheid, 16 pp.

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Assoc Tech Serv-22H103

Sci  
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Proof of Traps in C3S Single Crystals, by W.  
Muscheid, 5 pp.

GERMAN, per, Ann Physik, Vol XIII, 1953,  
pp 322-326

Assoc Tech Serv-23H10G

Sci  
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The Intensity Distribution of Spectral Lines in  
the Fabry-Perot Interferometer, by K. Krebs and  
A. Sauer,  
GERMAN, per, Annalen der Physik, Ser 6, Vol XIII,  
No 6/8, 1953, pp 359-368. 100007066  
AFCL T-G-245

Sci-Phys  
Sept 66

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Representation of Gas Currents By Means of  
Electron Beams, by B. Schumacher, 31 pp. UNCLASSI-  
FIED.

GERMAN, per, Ann Physik, Vol XIII, 1953,  
pp 404-420.

19,540 AEC-Tr-1947

Scientific - Physics

Nov 54 CTS/DEK

Two-Ray Interference -- The Principles of  
Interference and the Position of Interference  
Phenomena, by G. Schulz. UNCLASSIFIED

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pp 421-428.

DSIR/31876/CT

Sci - Phys  
Oct 58

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CEA-tr-A-451      Uncl.

SOURCES D'IONS POUR DES RECHERCHES DE PHYSIQUE NUCLEAIRE. (Ion Sources for Research in Nuclear Physics). O. Reifenschweiler. Translated into French from Ann. Physik (6), 14: 33-?(1954). 37p.

Particle Physics      MC-34

C-34   NP   NSA      Dep.(mc)

Production of Neon Rays From the Plasma of  
Gas Discharges, by O. Reifenschweiler,  
45 pp.

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SLA 60-18050

Sci  
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Theory of Diffraction by a Sphere on Consideration  
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17 pp.

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Scientific - Physics

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Comparison of Graphite Arcs and  
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pp 145-173.  
NASA TT F-10,265

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Sci-Phys  
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Interference Fringes of Equal Depth and  
Measurement of Length With Light Waves, by  
G. Schulz. UNCLASSIFIED

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Oct 58

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Eckart, F.  
CONDUCTIVITY MEASUREMENTS ON SELENIUM.  
[1963] 23p. 35 refs.  
Order from SLA \$2.60

63-10912

Partial trans. (p. 233-241, 248-252) of Annalen der Physik (East Germany) 1954 [ser. 6] v. 14 [no. 6] p. 233-252.

DESCRIPTORS: \*Selenium, \*Electrical conductance, Temperature, Semiconductors, Impurities, Bromine, Solids, Liquids, Vacuum apparatus, Crystal structure.

The dependence of conductivity on temperature of solid and liquid selenium is essentially determined by the purity of the selenium and is substantially influenced by the introduction of oxygen in the case of highly purified selenium. An E-value of 2.2-2.9 ev. was measured from a very reproducible  $\log \sigma \sim 1/T$  straight line (Physics--Solid State, TT, v. 10, no. 2) (over)

63-10912

1. Eckart, F.

Office of Technical Services

Electric "Microdischarges" in the Dynamical Vacuum, by Robert Arnal, 49 pp.

GERMAN, per, Ann Phys, Vol X, No 12, 1955, pp 830-873.

AEC Tr 2837

Sci - Physics

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Mar 57/CTS

STUDY OF ELECTRICAL DISCHARGE BY INDUCTION IN RARE  
GASES, BY F. CABANNES.

FRENCH, PER, ANNALES DE PHYSIQUE, VOL X, L955,  
PP 1026-1078.

TIL T 5273

SCI - PHYSICS

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Some Semiconductor Characteristics of Cuprous  
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GERMAN, Ger., Ann Physik, Vol XV, No 3, 4, 1955,  
pp 178-181.

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Sci  
Aug 58

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Ionic Conduction and Disorder of Silver Chloride  
With Additions, by Ines Ebert, J. Teltow,  
24 pp.

GERMAN, per, Annalen Physik, Vol XV, No 6, 1955,  
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AEC Tr 3554

Sci - Phys  
Mar 59

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A Theory of the Instruments for the Observation  
of Nuclear Magnetic Resonances, by Harry Pfeifer,  
15 pp.

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1955, pp 311-342.

Assoc Tech Sv Tr 70H9G  
(CIA FDD X-2361)

Sci - Physics  
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GEA-tr-A-996      Uncl.

UNE THEORIE DE L'APPAREILLAGE D'OBSERVATION DE  
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netic Resonances). H. Pfeifer. Translated  
into French by P. Monnard from Ann. Physik (6),  
15: 311-24(1955). 30p. *9090324*

Instrumentation; Physics; Translations      MC-34

C-34    NP    NSA      Dep.(mc); \$2.60(fs), \$1.10(mf)  
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Modification of the Structure of Evaporated  
Ge-Deposits in the Electron Microscope, by  
E. W. Fisher and H. Richter.

GERMAN, per, Ann Phys, Vol XVI, No 5-8, 1955,  
pp 193-209.

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SHA 63-14689

Aug 58

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Measurements Concerning the Third-order Homogeneous  
Thermoelectric Effect (1st Benedicks Effect). by  
G. Kocher.

GERMAN, per, Annalen der Physik, Vol XVI, No 5/8,  
1955, pp 210-226.

CSIRO Tr 3978

Oct. 62

The Influence of the Glass Substances, by D.A.G.  
Bruggeman.

GERMAN, per, Ann Physik, Vol XXVIII, No 4, 1955,  
pp 131-136.

ATS 326-GJ

Sci  
Nov 59

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A Modification of the Weissacker Correction  
in the Statistical Atom, by P. Gombas.  
GERMAN, per, Annalen der Physik, Vol 18,  
No 1-2, 1956, pp 1-16.  
\*NASA TT F-11,296

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Sci-Phys  
Jan 68

A New Method of Measuring the Complex  
Dielectric Constant in Centimeter Waves.  
Application to the Study of the  
Phenomenon of the Adsorption of Water,  
by J. LeBot.  
FRENCH, per, Annales de Physique,  
Vol 1, 1956, pp 463-492.  
NTC 72-10159-20C

Apr 72

Mechanical Distortions Due to Electric Discharges,  
by O. Bethge, 31 pp.

GERMAN, per, Ann Physik, Jun 1956.

SLA Tr 57-1415

Sci - Electricity

Oct 57

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*Precision of bubble-pressure method for the determination of the surface tension of liquids, by K.R. Cury.*  
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On the Photo-Electric Properties of Cadmium  
Sulphide, by G. Wilerick,

GERMAN, per, Ann Phys, <sup>No</sup> Vol I, 1956, pp 623-679.

INSDOC-T1888

Sci  
Apr 59

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Semiconductor Properties of Zinc, by C. Fritzsche,  
11 pp.

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Sci - Electronics  
Jul 59

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Partition Function and Effective Ionization  
Potential of an Atom in the Interior of a Plasma,  
by G. Ecker, W. Weizel, 19 pp.

GERMAN, 8-times-year, Ann Physik, Vol XVII,  
1956, pp 126-140.

ABC Tr 2841

Sci - Physics  
Apr 57 CTS/dex

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A Modification of the Weissacker Correction in  
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GERMAN, per, Annalen der Physik, Vol 18, No 1-2,  
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Sci-Mac Sciences  
Oct 67

The Axial Temperature Distribution at the Interior of the Anode of a Carbon Arc and the Thermal Conductivity of Graphite at High Temperatures, by J. Euler.  
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NASA TT F-10,266

U. S. GOVERNMENT USE ONLY  
Sc -Phys  
Dec 66

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Construction of an Accelerator Tube for Ions at  
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lating Electrons, by J. Sommeria-Klein, 73 pp.

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ANC UCRL-Trans-592(L)

Sci - Phys  
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Investigations On the Internal Demagnetization  
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GERMAN, per, Annalen Der Physik Ser..6, Vol XIX, 1956,  
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Oct. 62

Diffusion of Radioactive Ions in Crystals,  
by Marius Chemla, 48 pp.  
FRENCH, per, Annales de Physique, Vol I, No 13,  
1956, pp 959-999. 9226033  
AEC-UCRL-Tr-1038 (L)

Sci-Phys  
Dec 64

270,153



A New Method of Measuring the Complex Dielectric  
Constant in Centimeter Waves, by Jean Lehot  
30 pp. *ID 110499*

*per*  
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pp 463-492.

ACSI H-6062

Sci - Phys

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Entrainment of Impurities During Crystallization,  
by Jules Pauly, 34 pp.

FRENCH, per, Ann Phys. Vol I, 1956, pp 1003-1039.

AEC Tr 2871

Sci - Chem

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May 57

Influence of the Initial Copper Material on the  
Characteristics of Copper Oxide Rectifiers, b.  
F. Eckart, C. Fritzsche, 12 pp.

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pp 19-30.

Assoc Tech Serv 65J163

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Transformations (Mathematics), Relativity theory.

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separation of the two fields in accordance with  
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DESCRIPTORS: \*Gravity, \*Electricity, \*Electromagnetic fields, Mass energy relation, Motion, Equations, \*Relativity theory, Tensor analysis, Partial differential equations, Differential equations, Differential geometry, Particles.

The problem of choosing the Hamiltonian for the unitary field theory of gravitation and electricity is discussed. Then the compatibility of the field equations is demonstrated. There are 18 equations for 16 (Physics--Theoretical, TT, v. 8, no. 2) (over)

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